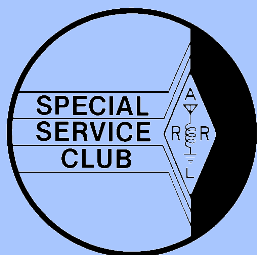




The Raleigh Amateur Radio Society's **EXCITER**

GET INVOLVED

- RARS General Membership meeting: **Second Tuesday** of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays @ 8:00 PM on 146.64.
- RARS meets for a monthly dinner on the **First Tuesday** of each month.
- On the **fourth Tuesday** of every month, in-person meeting at Ridge Road Baptist Church where there will be project tables, demos, snacks, and socializing.



PUBLIC SERVICE EVENTS

Interested in helping? Visit
<https://www.rars.org/public-service.php>

frequently for our 2021 ham public service schedule.

RARS General Meeting

Main Topic: AUXCOMM

By: Virginia Enzor, NC4VA

Date: May 10, 2022

Time: Meeting at 7:30 PM, informal gathering at 7PM on Zoom.

Where: Zoom

RARS In Person Meeting

Date: May 24, 2022

Where: Ridge Road Baptist Church

Time: 7:00 PM

On the fourth Tuesday of every month. In-person meeting at Ridge Road Baptist Church where there will be project tables, demos, snacks, and socializing.

RARS Officers

PRESIDENT

John Honeycutt
N8ZU
919.417.2477
jfh49@bellsouth.net

VICE PRESIDENT

Tom Lewis
N4TL
N4TL2@yahoo.com

SECRETARY

Mark Kilmer
KM4JRH
919.676.0110
mark.kilmer@gmail.com

TREASURER

Greg Seamster
KE4PAX
919.859.0029
KE4PAX@arrl.net



The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Regular dues for licensed amateurs are \$18 per year. (From July 1 through June 30.) Additional licensed immediate family members pay \$5 each per year. Dues for licensed full time students and licensed seniors 60 and over are \$12 per year. Unlicensed individuals may become associate members for \$9 per year. Applications for membership are available from the treasurer or on the RARS web site.

<https://www.rars.org>

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the Saturday that is ten days before the general meeting. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

Presidents Message, May 2022

Thanks to everyone for a wonderful RARSfest! Our first ham fest in three years was a great success. Most of our regular dealers, vendors, and presenters were there, and attendance was nearly the same as 2019. From where I was, almost everyone seemed to be having a great time. I certainly was.

It took a lot of ham radio enthusiasts to make it happen. Above all, the RARSfest committee and the many volunteers deserve an appreciative round of applause. Thanks also to the dealers, vendors, presenters and demonstrators, the VE team, the ARRL representatives, the door prize donors, and all the attendees. A special shout-out goes to Nancy Torborg, KB2TNR, for her instrumental role in getting the event back on the calendar after its previous cancellation and for chairing the committee.

With RARSfest behind us, Field Day can't be far ahead. The last weekend in June is one of the largest events for North American hams. RARS will again be hosting a number of Field Day contest stations, a GOTA station, and more. There will be food. This coming Field Day is the last of many at the Carroll farm. Curt Phillips, W4CP, and the Field Day Committee will be busy for the next two months to plan the details that make it happen.

Our next RARS club meeting will feature Virginia Enzor, NC4VA, presenting "Auxcomm." We often hear from new hams that emergency communications was a big reason they became licensed, so it will be great to see how Auxcomm works, how it is organized, and maybe how to get involved.

While our regular club meetings will continue on Zoom for the time being, there are several club events that give members and guests chances to meet in person. The RARS dinner is on the 1st Tuesday of each month at Chow Pizza Bar on Creedmoor Road in Raleigh. Come and meet with your fellow hams in a casual setting with tasty food.

Our newest in person event is at Ridge Road Baptist Church on the 4th Tuesday of every month. It will be more activity based. Instead of having a program, there will be radio stations set up, project tables, demonstrations, and people to talk with about Radio and other interests. At the May 24th event at the church, we will be offering Volunteer Examiner License Exams starting at 7:00.

Finally, there is a new special interest group on portable, outdoor operating. This group meets on weekends at a local park. There will be portable radio stations, Parks on the Air activations, and other demonstrations.

If you like local hamfests, the free, outdoor AB4OZ hamfest will be on Saturday, May 21 at 10:00. (Assuming you won't be in Dayton. Hamvention is the same weekend.)

Check out <https://www.rars.org/> for more details on these and other events. Or stop by <https://www.grz.com/> and search for AB4OZ's page for a lot of event information. No account or log-in necessary.

73 John, N8ZU

April 12, 2022 RARS meeting

The meeting was held on Zoom. Many members connected from 7PM on. President John Honeycutt, N8ZU, ran the formal part of the meeting. See the meeting minutes on [page 21](#) for details.

After the formal part of the meeting. Tom, N4TL announced that Josh Landewee was sick and would not be able to do the presentation. He sent links to two YouTube videos about DMR. Tom played both of the videos. The links are here.

The first one is 12 minutes long, <https://youtu.be/YwT5xR-mW5c>





















































This one is 5 minutes long, <https://youtu.be/-3HGGieNUx8>

There were a lot of questions after they two videos. Daniel DeCourt, W3WDD, and His father Chuck DeCourt, W3WZN, were on the zoom meeting. Daniel has two DMR Repeaters in the Western North Carolina area. Chuck explained DMR for a few minutes and then they both answered questions.



Daniel DeCourt, W3WDD, and His father Chuck DeCourt, W3WZN,

April 12, 2022 RARS meeting

 TL Tom Lewis, N4TL Raleigh ...	 CW Charles WA4OSS	 JK Joe KM4WRQ, Apex, NC
 Greg KE4PAX (Host)	 CT Chuck Till K4RGN Raleigh	 KL K4BYN Louis
 CK Chuck, K4HF - Raleigh	 CK Cliff KA7NSU Cary	 KN KB2TNR Nancy Torborg
 JH John Honeycutt N8ZU	 Curt Phillips W4CP	 KL Ken Latchum AD4GX
 MK MEME KE4NGM	 DW Dave W4EIP N Raleigh	 KD KO4IBL Denny
 MS Mike Salmi, N9MDS	 DW dennis wz0q	 LK Larry K4LXV Raleigh
 SN Stephen NY4NC Wake Forest	 DK Diane KC3HNG	 LR Lee Rogers WB4DRJ
 Tadd (KA2DEW) Torborg	 Dick KD4ISC	 Marc Sullivan
 AA Alan AB4OZ RALEIGH	 DA Doug AD4UL, Melbourne, FL	 MK Mike KN4DRN, Durham
 BD Ben Davis KN4RFT	 DN Doug N3LTV Raleigh	 RK roger k4klk
 B Bernard	 E- Eric - NR4O - Cary	 Ryan N7RYN
 BK Bob K4RLC	 EB Ernie Bauer	 SH Sam Harris
 BN Bob NC1X Raleigh	 Hank K4HM Ohio	 TP Terence Passey
 BW Bob Woodson	 JK Jack K8TO Denver, NC	 TK Todd KD4SOU
 BW Bob, W4GIA	 JB Jacob Buys	 T- Tom - NC4TS - Lake Royale
 Brandon W	 JK Jerry KE4TTS Cary, NC	 TO Tony O'Connor K1OC - Cary
 BK Brantley K4CBW	 JK Jim KM4WRK, Raleigh	 W- W3WDD - Daniel
 Carl Davis		

52 people attended the zoom meeting

Future RARS Meeting Topics

Titles, topics, and speakers **subject to change.**

Date	Topic	Presenter
5/10/2022	AUXCOMM	Virginia Enzor, NC4VA
6/14/2022	Field Day	Field Day Chair Curt Phillips, W4CP
7/12/2022	"Mid-air Refueling Mission & Communication Methods Used"	Joe Owen K4HEW
8/9/2022	Small resonated HF Loop Antennas	Richard Quick, W4RQ
9/13/2022	"Things hams were taught that aren't true"	Chuck Till, K4RGN

During the Zoom meetings please keep
your microphone muted.

Please edit your name so your
Name, Call and Location are shown.

April 2022 RARS net report

30 nightly 2m nets

466 checkins

925 minutes

1 quarterly 10m net

4 checkins

15 minutes

KT4JR Julie Royster

April 16, 2022 RARSfest



RARS president John Honeycutt N8ZU at the Stage during the RARSfest

Door prize winners from RARSfest 2022

9:00AM Preregistration \$100 – Charles Fraizer

10:00AM Hourly \$100 – Andy Corbin W4KAN

11:00AM Hourly \$100 – Fletch Penn N4JZO

12:00PM Hourly \$100 – Matt Demko N1FSV

1:00PM Hourly \$100 – Duane Cutlip AI8U

2:00PM Grand Prize \$400- Tim Slay N4IB

The Yaesu FT4X Dual Band HT donated by KJI Electronics was won by Ed Holmes of Durham, who is currently studying for his license.

Tadd KA2DEW took a 47 second video during the RARSfest.

You can skip the ad in the beginning after a few seconds.

<https://rumble.com/v119nht-rarsfest-2022-quick-movie.html>

RARSfest photos courtesy of Nick England K4NYW

<https://photos.app.goo.gl/bVvh9rdDDwWRnUxn9>

April 16, 2022 RARSfest pictures



RARSfest pictures by N4TL



Charles Swindell, WB4DCM; QCWA Chapter 126 Secretary & treasure Sue Meyer, W2G HK; Roanoke Division Director Jim Boehner N2ZZ

RARS Membership links

Use the following link to verify / update your membership profile.

<https://www.rars.org/userprofile.php>

Use the following link to renew your membership.

https://www.rars.org/membership_renewal.php

HAM RADIO LUNCHEON

Everyone is welcome!

Every Thursday at 11:30 am

New York Diner, 909 McKnight Drive Knightdale.

<https://www.facebook.com/NewYorkDinerNC>

Check the latest information on the AB4OZ QRZ entry.

[QRZ.COM](https://www.qrz.com).

Hamfest Calendar

For details go to <https://www.arrl.org/hamfests/search>

Free AB4OZ Hamfest, Weather permitting

The free AB4OZ Hamfest will be Saturday, May 21, 2022. Setup at 9AM. Start time is 10AM. New location, Golden Corral Restaurant rear parking lot. 3551 Grenelle street, Raleigh NC 27603.

Check the latest information here [QRZ.COM](https://www.qrz.com).

<https://www.rars.org>

RARS Member Birthdays & New Members

Member Birthdays

Richard	K7RLH	05/01
George	N2GXC	05/01
Matt	NC4SU	05/03
John	KJ4JAS	05/04
Julie	KM4JEN	05/04
Ron	KJ4DNS	05/04
Liz	KO4CK	05/05
Larry	KG4FIQ	05/05
Michael	KG5AWR	05/06
John	N4JMB	05/08
Wayne	K6TWX	05/08
Hank	K4HM	05/08
Carla	KB4MDY	05/09
Brian	KA9QJT	05/10
Bob	NC1X	05/11
Chuck	AE4CD	05/12
David	KC4DFB	05/12
Joe	AF1E	05/16
Chris	KE4TMO	05/17
Frank	W4NPN	05/17
Bill	AK4BL	05/20
Larry	K1ZW	05/20
Phillip	N4HF	05/23
Lyn	WA4GEH	05/24
Joe	K4UOO	05/24
Ken	AD4GX	05/31
Neil	KM4JEL	05/31

New Members

Irving Goldstein	KO4ZFR
Mark Ferrell	KJ4NPF
Lou Cerny Sr	
Mark Kocher	KB4CNQ
Wolfe	K4MPW
Isaiah Deppong	Waiting
John Jarman	Waiting
Duncan McCormick	Waiting



Portable at Umstead North

The RARS Portable Operating Group met on April 23, 2022 at Umstead State Park near Big Lake for our second outing. Attendees included a dozen hams, some experienced and some new, who came to enjoy portable radio on a very pleasant spring day.

The program was on public service events and was presented by the RARS Public Service Chair, Jeremy Lindsley K2HJX. Jeremy gave an overview of different types of public service events, explained how they normally operate, and demonstrated the portable VHF/UHF station that he regularly uses to run a public service net control station. His portable station consisting of two dual-band radios, vertical antenna with collapsible mast and tripod, combined with a versatile battery power source generated a lot of interest from participants.



Following the presentation, Jeremy led us through a mock public service event using HTs and his VHF/UHF station. Participants were assigned a tactical callsign and dispersed through the park on different trails and paths. Jeremy ran a formal net, typical of public service events, where participants were able to familiarize themselves with net protocol.

Portable at Umstead North continued



Following the public service portion of the outing, Patrick Easters KS4PE assembled his portable QRP HF station to attempt a POTA activation. The station came together quickly with a self-supporting Buddistick antenna. Patrick was able to search and pounce quickly using his waterfall display, however solar flares made HF operation difficult at best. Some stations could be heard, but QRP operation made completing QSOs a challenge. We resolved to return on a future date to activate the park.

Portable at Umstead North continued



We hope to see you at the next Portable Operating outing in May!

The HFs



K4HF, N4HF and W4HF at the Charlotte Hamfest 3/12/2022

FIELD DAY IS COMING!! And we need YOU!

That's right, Field Day is around the corner. This is amateur radio's most popular event of the year!

Officially, it's Saturday and Sunday, June 25 and 26, but set-up starts on Friday, June 24th. Great food, fun and fellowship will be had, along with learning experiences which will make you a better, more knowledgeable amateur radio operator and emergency communicator!!

If you are new to radio, or even have some experience, you can learn about antennas, feedlines, radios, generators, putting up tents and how to put together an HF (shortwave) station, even in less than optimum conditions. We take something like a meadow with a few trees, and in a few hours turn it into an independent communications center, capable of operating on several frequency bands at the same time and making contacts around the continent, and even around the world.

Then on Sunday, we return the area to its natural state!

If you or a family member or friend has never made a contact via HF (shortwave) radio, or if you're out of practice, we will have a GOTA (Get On The Air) station which will teach what a person needs to do, and work with them to make some contacts!! No license is needed because a licensed control operator will be there. So encourage some of your friends and neighbors to come out, find out about ham radio and talk to people over the air!

This year will be our last year at the great Carroll farm, so it will be extra special! A map to get to the Carroll farm (near Apex) will be posted on the RARS website in a week or two.



Oh yes, FOOD!!! We'll have pizza on Friday night for the hungry set-up crew! And on Saturday night, we'll have our FEAST (including, by popular demand, BBQ pork!!) Sunday lunch will be our plentiful left-overs, supplemented as necessary, and all in-between we'll have snacks, soft drinks and the ever popular COLD water!!

We need assistance in several areas. If you want a job, just let me know and we'll find something especially for you! Or come out and be a "utility" person, helping in several areas and learning numerous skills!! Just contact me at curt@w4cp.com and we'll discuss what will be best for you!

And if you're already an expert in all of these areas, wow can we use YOU!!

You can read more in depth about Field Day at the American Radio Relay League's website, <http://www.arrl.org/field-day>. Or give me a call, and we'll talk it over.

FIELD DAY IS COMING!! And we need YOU! continued

NOW is the time to make your plans to participate in the first, REALLY post-COVID Field Day. The trees and tents and radios and your fellow radio hobbyists are calling you to be there!! Don't let them down!!

Curt Phillips W4CP
curt@w4p.com
919-896-3889

Remote Receivers

Copied from the Tar Heel Scanner group.

From Tom McKee K4ZAD, April 19, 2022

Guys,

During Monday night's Zoom meeting I mentioned using nearby remote receivers to check how my WSPR receptions stacked up against others. So far, the bottom line is that my setup is competitive.

I found the nearby RX via <https://ve3sun.com/KiwiSDR/> I sorted the table by the map column and scrolled down to FM05 (our grid) and found 7 remote RX. Still have several to try. The Kiwi RX are of the most interest to me as one of its many extensions is WSPR receive.

Other remote receiver links:

<http://www.websdr.org/>
<http://www.remotehams.com/online.html>
<https://rx-tx.info/>
<http://rx.linkfanel.net/>
<https://www.globaltuners.com/>
<https://www.openwebrx.de/>

Tom K4ZAD

Putting up a wire antenna?

I found this statement on the internet.

“Polyester is the best choice for antenna support rope or any outside application where strength, less stretch, UV and abrasion resistance is important. Unlike Nylon, Polyester Rope is less elastic and therefore stretches much less. In fact Nylon Rope will stretch anywhere from 15 – 25% per cent at it's break point. “

I asked a few of my DXer friends if that statement is true. They said yes and Synthetic Textiles polyester rope is a good one to use. www.synthetictextilesinc.com

DXengineering also sells it.



Learn How to Tie a Bowline Knot

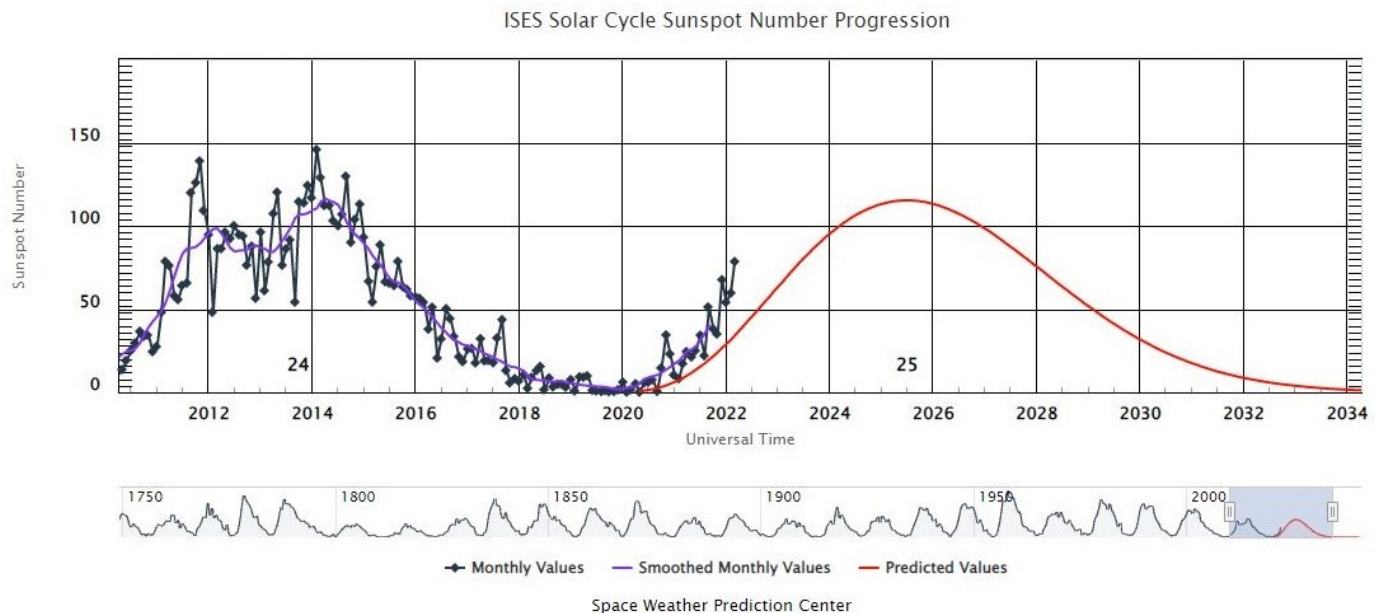
The bowline knot is one of the most useful knots you can learn. It is the most well known and important boating and sailing knot, often referred to as the 'King of Knots'.

The knot forms a secure loop at the end of a rope which is easy to tie and untie, even after being placed under heavy load.

The bowline knot has been used for hundreds of years by sailors and is considered to be one of the essential knots that everyone should know.

Solar Cycle 25 is ramping up faster than predicted.

SOLAR CYCLE PROGRESSION



<https://www.swpc.noaa.gov/products/solar-cycle-progression>

10 Meters - 28 MHz - N4TL, Tom, in North Carolina, worked three Thailand stations, E20EHQ, HS5NMF and HS0ACS on 10 meters FT8 April 26 around 1400Z.

RARS Monthly Dinner, NEW LOCATION

All members and guests are welcome to the monthly (first Tuesday) RARS Supper, 6:30PM, at the CHOW Restaurant, 8311 Creedmoor Road, Raleigh. The restaurant is at the corner of Brennan Drive and Creedmoor Roads, behind McDonalds. After entering the restaurant, go to the left rear to the private room. Informal and Dutch, just bring your appetite and best rag to chew. "Your attendance will help us retain the private meeting room."

<https://www.rars.org>

RARS Classifieds

Copied from <https://www.rars.org/classifieds.php>

The items below were listed within the last 30 days on the RARS website.

Check the RARS Classified List on the RARS website regularly for new items.

Chameleon MPAS 2.0 Antenna

Posted May 1st, 2022 by: W4BMX

Contact: tonylaszlo@hotmail.com

For Sale Chameleon MPAS 2.0 Antenna 160-6m

Hybrid Micro, 73' Antenna Wire, Line Winders, Counterpoise wire, CHA MIL 2.0 Whip

CHA MIL EXT 2.0, COAX cable, CHA CAP HAT, Home Brew Spike Mount, Manual

The whip and extension have some scuffs from portable use. Works as it should.

*Please note – the original spike mount is not included.

Payment Cash or via Paypal or Venmo \$425, no returns

Regards,

Tony, W4BMX, 919 961-1813, Can send picture by text.

Telephone Pole and Antennas, etc.

Posted April 28th, 2022 by: K4HF

Contact: k4hf@arrl.net

A ham estate in Garner has one standing 35' telephone pole in very good condition with a HyGain Tailtwister Ham rotor and Controller and a 3 element 20-15-10 Meter Moseley Triband beam antenna and a dual band side mounted vertical antenna on it. There are some Cushcraft Ringo Ranger 2 Meter antennas and a GAP or Butternut HF Vertical antenna disassembled in the storage building. Good runs of rotor and coax cable have been removed but are part of the package. All the above is available to the party who takes the pole down and removes it from the property. It needs to be removed in the next week or two. Pictures are available. Contact me by e mail, preferred, or (919) 872-6555 - Thanks, Chuck

FLEX 6400 with ATU.

Posted April 28th, 2022 by: K4DME

Contact: Dme261@gmail.com

FLEX 6400 with ATU. Purchased new August 2021.

Dave 209-840-2101 \$1800.00

<https://www.rars.org>

RARS Classifieds continued

Ameritron AL-811H Amplifier for sale

Posted April 27th, 2022 by: K4LXV

Contact: k4lxv@twc.com

Ameritron AL-811H amplifier. Just upgraded and repaired, including input band switch, meter, plate choke, power supply caps, and a new set of matched 811A tubes. \$950.

Ph 919-612-1447

Flex 3000 SDR Transceiver Package with PC

Posted April 20th, 2022 by: KN4RFT

Contact: kn4rft@gmail.com

Price Reduced!

I have For Sale my Flex 3000 SDR Transceiver; 160 meter to 6 meter, 100 watt output, all modes, built in tuner capable of matching up to 3:1 SWR mismatch.

Also included are 1 Dell PC, 1 FlexControl Knob, 1 hand mic, 1 mic/ptt adapter from W2ENY, Firewire cables, and 1 set of powered external speakers. The Flex 3000 was recently inspected by Troy Radio of Troy Texas, an authorized repair shop for legacy Flex products, and the PA was recalibrated to provide 100 watts output on all bands.

The PC comes with i-5 3.2ghz Processor, 8gig RAM, 1 TB harddrive with Windows 10, a Firewire card installed, and PowerSDR by KE9NS loaded. KE9NS has continued to update and improve on the original PowerSDR with features that I miss in SmartSDR.

This is a great radio package and I'm very pleased it was my introduction to operating an SDR. I am no longer using this transceiver and equipment after upgrading my primary HF radio to a Flex 6400. The radio and PC are currently hooked up at my QTH and available for demos.

Price: \$800 obo for the package.

Thank you,

Ben Davis KN4RFT

kn4rft@gmail.com

919-906-7844

RARS Classifieds continued

Oscilloscope Repair or Buy

Posted April 29th, 2022 by: W4BOH

Contact: infomet@embarqmail.com

I once met someone at a hamfest, maybe RARSfest, who repairs analog scopes.

Does anyone know who it could be?

I have a TEK 465 with one bad front end and I can't get to it right now.

Also, if anyone has a small inexpensive analog scope for sale, please let me know.

73, Wilson, W4BOH

Electric Radio Magazine

Posted April 28th, 2022 by: W4BOH

Contact: infomet@embarqmail.com

Number 303, August 2014, Free, Wilson, W4BOH

FS: Hallicrafters SX-17

Posted April 28th, 2022 by: W4BOH

Contact: infomet@embarqmail.com

Nice vintage boatanchor that has been put into excellent operational shape.

Make your station very impressive, \$150, picked up in Hillsborough.

Wilson, W4BOH

FS: MFJ 1704 Antenna Switch

Posted April 28th, 2022 by: W4BOH

Contact: infomet@embarqmail.com

The heavy one, selects among 4 antennae and ground, lists about \$125.

Buy for \$75, picked up in Hillsborough.

Can be mailed, but it's heavy.

Wilson W4BOH

March RARS Board Meeting Minutes

These minutes will be published in a future issue.

Raleigh Amateur Radio Society
Meeting Minutes
12 April 2022
7:00 PM Eastern Daylight Time

The April 2022 RARS meeting was held via zoom and called to order by President John N8ZU at 7:00 PM Eastern Time. The meeting was opened with the pledge of allegiance to the American flag.

RARS Fest Chair Nancy Torborg made an announcement about RARS Fest reminding all that the event will take place this coming Saturday. She reported that we have more than 50 volunteers participating in the event. There will not be a Friday evening dinner this year.

W3WDD and Jacob Buys (who does not yet have a callsign) were introduced as visitors. KC3HNG was introduced as a new member.

A quorum being present the minutes of the previous meeting were approved. The motion to approve the meeting minutes of the March 2022 meeting was made by N4TL, it was seconded by K4HF. The motion carried unanimously.

Vice President N4TL gave the vice president's report. Tom reported that next month our presentation will be given by NC4VA on the topic of aux com. The program for the June meeting will be Field Day.

Treasurer Greg KE4PAX gave his report.

Secretary Mark KM4JRH was not present so there was no secretary's report.

Director Alan AB4OZ reminded everyone to look him up on QRZ.com and read his announcements. Every Thursday there is the ham radio lunch at 11:30 AM in Knightdale. On Saturday, 16 April is RARS Fest. The 10-meter net will be on Saturday, 23 April. The time of that net will be when the 2 Meter RARS net ends that night. On 3 May there is the RARS dinner at 6:30 PM at Chow Pizza Bar. The next AB4OZ hamfest will be on 21 May. The 4th Tuesday Meeting for new hams will be at the Ridge Road Baptist Church.

Tom N4TL reported about the consignment table at RARS Fest. Anyone using the table to sell gear should register before 15 April using the computer program online. If donating the item to RARS please write "Donating to RARS" in the description box.

[Jump back to page 4](#)

RARS Membership Meeting Minutes – continued

Youth Director Brantley K4CBW reported on the success of the first portable operating SIG event. The next such event will be on 23 April during the afternoon. The time and location for that event is TBD. Information about the event will be shared on the 2-meter nets and the RARS e-mail. Info about these events will also be on the QRZ page for K4CBW.

Director Tadd KA2DEW reported about the in person gathering held at the Ridge Road Baptist Church for new hams and hack day. The event went very well with 5 operational stations as well as information about RARS Fest and RARS. More than 30 people attended. There will be another one next month. These events take place on the 4th Tuesday of the month at 7:00 PM with setup at 6:00 PM. It lasts two hours. The NC Packet project is still growing and is now in 7 counties.

N8ZU announced that the board meeting will take place next Tuesday at 7:00 PM on zoom. All RARS members are welcome to attend. Anyone with business for the board should contact N8ZU before the meeting to get on the agenda. N8ZU also reminded us that we have two new face-to-face meetings now, namely the 4th Tuesday event and the Portable Operating SIG monthly event. We also have a homebrew SIG and shortwave/scanner SIG that any member can participate in.

Field Day Chair Curt W4CP reminded us that Field day is coming up. Anyone who wants to volunteer to help with Field Day should e-mail curt@w4cp.com

N4TL then introduced the program. The person planning to speak to us was ill, so in his absence N4TL played some videos on the topic of DMR. The first was entitled "What is Digital Mobile Radio? A Quick Introduction". We then watched another video called "A Brief Introduction to DMR". After the video, conversation was had about DMR in our geographic area. Chuck deCourt, W3WZN, reported that a DMR repeater was installed on Monday April 11th. It is located near North Hills on 6 forks just North of interstate 440. It is on 443.375 MHz.

The motion to adjourn was made by NY4NC and seconded by K4CBW. The motion carried and the meeting was adjourned at 8:50 PM.

Respectfully Submitted,

Carl Davis, W8WZ

Substitute Secretary for the evening

A Review and Comparison of the TN07 SFP-102 Stealth Flagpole Antenna

By: Carl Davis, W8WZ

4 April 2022



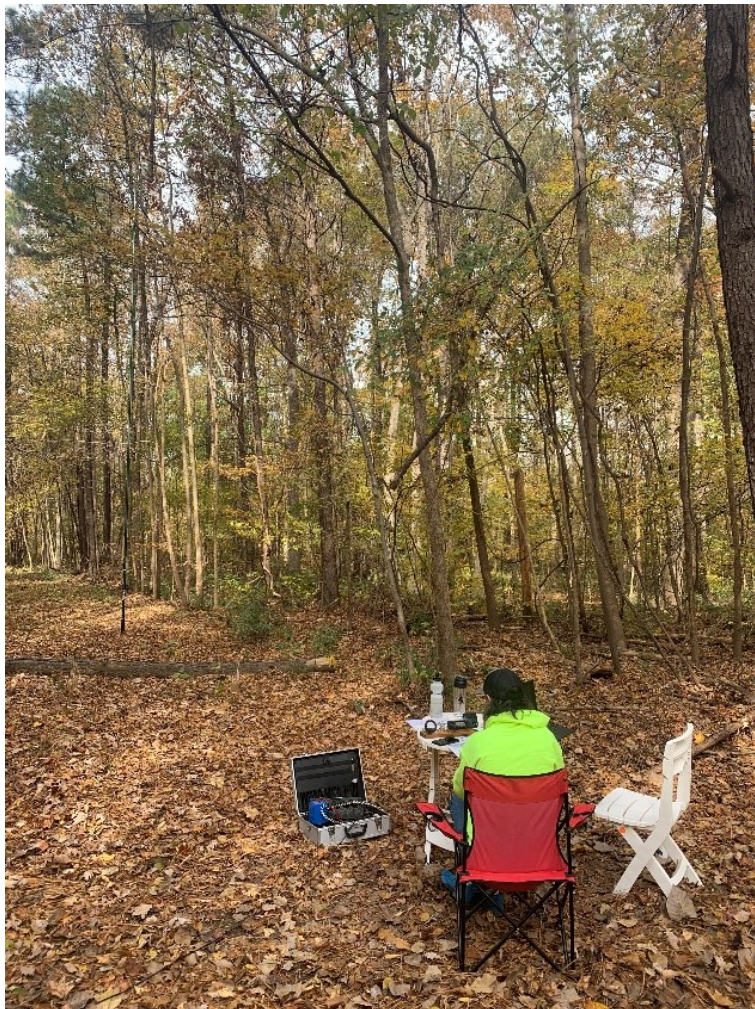
In the world of portable ham radio operations, finding an antenna that performs well and is also easy to transport and easy to put up and take down is rare. I am happy to report that I have found the TN07 SFP-102 vertical antenna to be just such a product.

After more than 25 years as a ham radio operator, I recently became interested in portable operating. This started because during the pandemic my friend John, KG4AKV and I were asked to be a bonus station for the North Carolina QSO Party. John is a great phone operator and I stick with CW. So together, we make a good team for a bonus station that could work both code and phone stations. However, because this was in the middle of the pandemic, we wanted to figure out a way to do this as safely as possible. So, we decided to set up an outdoor station for this purpose. It was like a mini-field day. We had so much fun with that project that we decided we would start doing POTA activations together too. Thus, the quest for a good portable antenna began. We wanted a multiband antenna that was easy to put up and take down and that worked well on the air.

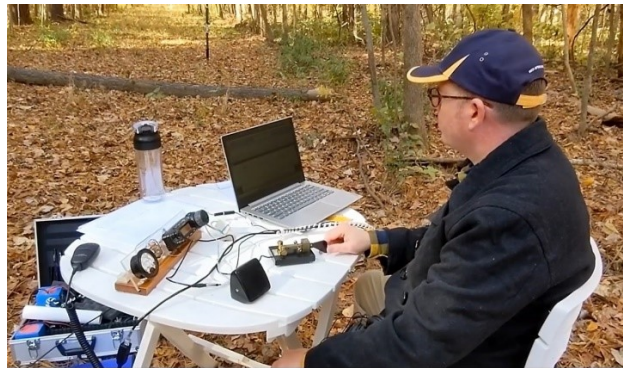
Stealth Flagpole Antenna continued

We used the TN07 SFP-102 vertical antenna to activate the Swift Creek Bluffs State Nature Preserve in Wake County, North Carolina on November 20, 2021. We used a 100 watt radio and used both CW and SSB. Over the course of a few hours we made 26 CW contacts and 84 SSB contacts using the antenna. This was the most contacts made by any POTA activation at this park. We found this antenna to be exactly what we were looking for, in addition to working well, as shown by the QSO count, it was extremely easy to transport, install, use and take down.

Here is a picture of the antenna as we installed it in that activation and pictures of John and I using it.



Stealth Flagpole Antenna continued



Carl, W8WZ



John, KG4AKV

We considered this POTA activation a great success, thanks to this antenna. Sometimes the antenna is even easier to install than it was on this outing. For instance, when I am operating near my parked car, which we couldn't do from this park, I simply use the drive over mount from TN07 and support the antenna using that mount. The antenna seems to work

Stealth Flagpole Antenna continued

equally well when using the car as a support, or simply leaning against a tree branch in the woods as we did during this POTA activation.



Even though the antenna clearly worked well, I wondered exactly how this antenna would compare to a textbook, half wave dipole up half a wave length high. So, I decided to do a side by side test to find out. On April 2, 2022, I put up a 40 meter dipole at 60 feet and set up the vertical antenna too. I connected both antennas to my radio using 100 feet of RG8 coax, so each antenna had the same length of the same type of feedline. I then used an A/B switch to switch between them. To my ear, and the S-meter, the dipole was about 2 S units louder than the vertical.

Stealth Flagpole Antenna continued

I then transmitted CQ using CW and looked myself up on the Reverse Beacon Network (RBN). RBN is a system of receivers connected in real time to the internet. When the online receivers in this network hear you call CQ they spot you on the network and give their signal to noise ratio for your signal. You can then view this data on the RBN webpage. The higher the SNR number is, the better your signal. I did this for both antennas and found that the average signal to noise ratio number for the vertical was 16 and the average signal to noise ratio number for the dipole was 28.5.

I then decided to get some on the air reports. I had a nice QSO with a station in West Virginia. He was unable to tell the difference when I switched between antennas, giving me a 599 signal report on each one. I then used the dipole to answer a POTA station calling CQ and he gave me a 599 report. I then switched to the vertical and he told me I was then 569. When we used this antenna for our POTA activation we often found that we gave the other station a 59 report and they gave us a report between 55 and 58. This afternoon of operating gave me enough data to make some conclusions.

To me, the most important lesson was that the vertical antenna works. It may not result in as good of a signal report as a textbook, half wave dipole up half a wavelength in the air does, but it still gets me in the logbook many times. When activating a park, it doesn't matter if my signal report is 559 or 599. As long as the contact gets made, the activation is a success. The less time I spend putting up an antenna, the more time I spend on the air. Also, in many POTA locations, a dipole isn't even possible to install due to the physical limitations of the location. The vertical can be installed quickly and easily almost anywhere.

Next, my experiment showed that the vertical is much easier to install than a dipole. It took me 45 minutes to install the dipole. This involved shooting a rope over a tree with an arborist sling shot, then hoisting the antenna up, with lots of walking between the trees. I had to carry rope, sling shot, fishing line, weight to shoot over the tree, and antenna. I also had to find a place with tall trees spaced at the correct distance. Take down was also time consuming as care had to be taken not to tangle the rope and wire antenna. The vertical, on the other hand, was erected in 10 minutes with no difficulty at all and no

Stealth Flagpole Antenna continued

well-spaced tall trees, rope or sling shot were needed. Additionally, the vertical is multi band. The dipole is only monoband. Take down was much easier with the vertical as well. There were no ropes to tangle, no tree branches to snag. The vertical worked on all HF bands with no tuner needed.

My conclusion is that when I have the space and time and only want to work one band, the dipole is the better choice as it will give better on the air performance. This would be the case at my home station, for instance, where I don't mind taking time to erect the best antenna possible and have room to do so, or at an event like Field Day where I have lots of time to set up and am at a location that has been especially selected for being antenna friendly. However, if I don't have the time to spend, or the location for, a dipole or other such full size antenna, then the TN07 vertical wins out. Also, if I want to be able to use more than one band without putting up more than one antenna, the TN07 vertical wins. Most POTA activations are situations where the TN07 vertical is the better choice. So are most quick ham radio demonstrations and special event stations operating from public locations.

The TN07 antenna is a good temporary antenna for portable use. But as they say, the proof of the pudding is in the eating. So here is a short video of the antenna in use to show you how well it works and how much fun can be had with this well built, easy to use, good performing product from TN07.

<https://www.youtube.com/watch?v=RgMjwIrPdb8>

LET'S TAKE BACK ELEVEN METERS!

Howard A. Goodman, N4KYW

This concept is probably not new. But I've never seen it discussed or written up anywhere else. So here goes.

For those among us who are either too young to have witnessed it or who are not historians of amateur radio: On September 11, 1958, ("Nine-Eleven") the FCC suspended amateur operations on the Eleven Meter band to make room for a new code/examination-free Class D voice communications service, colloquially known as the Citizen's Band.

Remember, back in those days there was no Internet, mobile phones, YouTube, or texting. So those who yearned for their fifteen minutes of notoriety quickly saw Citizen's Band Radio as a means for anointing themselves to stardom as hosts of their own talk shows. The result: Chaos on 27 megahertz (or megacycles per second, as the unit of frequency was referred to in those days).

Once word got out about an exam-free radio service, the FCC became deluged with requests for CB licenses. Ultimately, this agency of the federal government could not keep up with the demand for licenses. In the fall of 1982, by an act of Congress the FCC officially dropped the requirement for a CB license. All of the data pertaining to preexisting CB licenses on file was irretrievably buried. I still retain a paper copy of mine, which bears the call sign, KAZH-1876.

Now for the concept. I thought it might be fun for licensed amateurs to "take back" the Citizen's Band, or at least a portion of it. Two main drivers that immediately come to mind are 1) Re-explore an HF band that was once ours, and 2) Availability of inexpensive, readily available operating equipment and antennas.

Below, I have listed a set of rules we as amateurs could live by while operating on 27 megahertz. Please understand this is a fluid work-in-progress. But it is a start.

Equipment:

Equipment used shall conform to requirements and specifications as set by the Federal Communications Commission for operation in the Citizen's Band.

LET'S TAKE BACK ELEVEN METERS! *continued*

Frequency (Channel) Usage:

Several contiguous channels (t.b.d.), preferably Channel 23 and below. Reason: Specifying 23 as the highest channel would allow for the inclusion of older, plentiful, 23-channel equipment.

Permitted Operating Modes:

AM. Also SSB, FM, if transceiver is so equipped.

Call Signs (two approaches):

Approach 1: Pattern call signs after my vintage CB call sign as mentioned above: four letters, followed by a hyphen and four numerals. However, as with the FCC's deluge of licensing requests, if operation by hams in the 27 megahertz band were to increase in popularity it will probably be prudent to establish a (voluntary) bureau whose responsibility would be to coordinate the issuance and maintenance of call signs.

Approach 2: If not otherwise prohibited by FCC regulations, simply use our own ham radio call signs. Only known drawback (rare): An irate Cber may know how to use your call sign to find your address.

On-Air Behavior:

It's simple! As amateurs, we would conduct ourselves in the same dignified manor as we do while operating on one of the amateur bands. No foul-mouthed talk, no stomping on others while they are transmitting, no impulsive breaking into existing QSOs, no self-appointed good-ol'-boy handles or yayhoo behavior.

Perhaps there could someday be the establishment of a weekly directed net. If conducted right on the Citizen's Band, it would not only allow non-hams to listen in but also serve as the ultimate beacon of good net behavior and skills in two-way radio operation.

Martin, KI4CFS, often speaks of ways to attract others into the amateur radio community. Perhaps there is a prospective audience among those who now use the Citizen's Band and are curious about amateur radio but lack the equipment to become acquainted with it..

And there you have it! As with most other ideas, I'm certain the nay-Sayers will be quick to draw their reasons like a sidearm from a holster. Still, I'd like to hear from them, as well as others who have additional ideas and suggestions toward supporting this concept.